

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/051039

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05K1/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, IBM-TDB, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 235 235 A (TDK CORP) 28 August 2002 (2002-08-28) paragraphs '0017!', '0018! paragraph '0027! figures 2-4	1-10, 13, 14
Y		11, 12, 15
X	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 10, 31 August 1998 (1998-08-31) -& JP 10 135591 A (MATSUSHITA ELECTRIC IND CO LTD), 22 May 1998 (1998-05-22) abstract; figures 3,6	1-10, 13, 14
Y		11, 12, 15
Y	EP 1 150 311 A (TDK CORP) 31 October 2001 (2001-10-31) paragraph '0181! - paragraph '0183!; figures 12,13	11, 12, 15

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

21 September 2004

Date of mailing of the International search report

29/09/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Dobbs, H

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/051039

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1235235	A	28-08-2002	JP 2002324729 A CA 2372757 A1 CN 1375840 A EP 1235235 A1 US 2002122934 A1	08-11-2002 22-08-2002 23-10-2002 28-08-2002 05-09-2002
JP 10135591	A	22-05-1998	NONE	
EP 1150311	A	31-10-2001	JP 2001303102 A JP 2001313208 A JP 2001338813 A EP 1150311 A2 US 2002039667 A1	31-10-2001 09-11-2001 07-12-2001 31-10-2001 04-04-2002